

# Financial and Capacity Building Intermediation in Asia RE Projects

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# Finance and capacity building for scale up of rural RE

- aim - expand access of rural households to modern energy on significant basis
- focus - market based financing to consumers or firms by banks or other financial institutions (FIs) for small energy investments, with special reference to pv systems
- result - successful pv system retail level sales and services in rural areas

# Customer characteristics

- households, beyond the grid, dispersed
- high ability and willingness to pay
  - salary income or cash income from farming, fishing, livestock, small businesses
  - currently spend cash regularly to purchase energy for lighting and tv / radio - typically kerosene, used vehicle batteries, dry cell batteries
- limited access to financing for consumer durables

## Local PV business characteristics

- small/medium size, entrepreneur driven, family businesses, with many exceptions
- partially in the informal sector
- main financing is savings, family, friends
- most receive some supplier credit
- few have credits from FIs for the pv business
- a few have finance and training links with suppliers and international NGOs
- some have government procurement experience

# Main lines of financial interventions

- working capital and term credits
- grants for initial market development
- framework for mobilization of additional financial resources (e.g., fresh equity in existing and new companies, guarantees, increased supplier credits)

# Design considerations

- affordability: market size and price points for cash and credit sales and fee-for-service schemes
- profitability, sustainable business models
- capabilities and commitment of pv businesses, FIs, technology suppliers, others
- creditworthiness of customers and pv businesses
- availability of finance, supplier support
- level of competition and consumer choice
- consumer protection - product standards, after sales service, warranties

# Design tensions and trade-offs

- expand the market vs deepen the market
- strong technical specifications vs consumer choice
- the devil is in the details and banking is documentation vs keep it simple and maintain flexibility

# Advance capacity building

- business planning assistance
- financial management and accounting
- best practices information and training
- product improvement design assistance
- product testing and certification
- links with financial institutions, investors, guarantee sources

# Competitive financing and refinancing

- mismatch loan and subloan maturities
- competitive interest rates
- simple procedures (their's if possible)
- quick disbursement processing
- grants transparently for initial market development
  - cost share preparation expenses and initial technology improvement
  - for unit sales to increase affordability
  - cost share trials of market development ideas

# Parallel capacity building

- business planning
- financial management and accounting
- technology improvement, training
- product testing, certification, quality assurance
- information to market place
- links with financial institutions, investors, guarantee sources
- market monitoring

# Compliance monitoring

- end user audits (participants required to maintain customer sales and warranty records and have audited accounts)
- performance audits
- customer satisfaction surveys
- focus groups

## Financing-related effects on FIs

- lower pipeline development and transaction costs of FIs
- lower risk perceptions of FIs and investors (market surveys, comparative information)
- lower technology related payment and market risks (training, robust specifications, after-sales requirements)
- lower FI monitoring costs (field audits, customer satisfaction surveys)

# Key approvals structure

	<b>SHS</b>	<b>ESD</b>	<b>RED</b>
<b>Approve company</b>	PB, WB	PCI, WB	PMO, WB
<b>Audit compliance</b>	PSG	PCI	PMO
<b>Approve grant pay</b>	PB (after 1 <sup>st</sup> audit)	AU (after 1 <sup>st</sup> audit)	PMO(after audits)

# Key price, loan and grant terms

	<b>SHS</b>	<b>ESD</b>	<b>RED</b>
<b>Sale or service to customers</b>	market based pricing	market based pricing	market based pricing
<b>GEF unit grant</b>	For 30+Wp \$60/100 – on/off Java; for 50+Wp \$75/125 - on/off Java	For 30+Wp, \$100	For 10+Wp, \$1.5 <i>per Wp</i>
<b>Loan to company from PB / PCI</b>	Rupiah, market rates, up to 5 yrs	Rupees, market rates, up to 10 yrs	none
<b>WB refinance loan to PB / PCI</b>	80% refinance, 20 yrs incl 5 yrs grace, central bank SBI three month rate	60% refinance, 15 yrs, incl 5 yrs grace, average weighted deposit rate	none